

CLAIMS

- 1 1. A computer-based method for duplicating, onto one or more selected target com-
2 puters, a software system installed on a source computer the method comprising:
3 retrieving an image of the source computer, the image containing at least hard-
4 ware configuration information of the source computer, disk partitioning information of
5 the source computer, a list of files installed on the source computer and operating-system-
6 specific information of the source computer;
7 transmitting the image from the source computer to an installation engine;
8 recreating at the installation engine in an imaging area the software system of the
9 source computer system based on information in the image; and
10 installing the recreated software system on the selected target computer systems.
- 1 2. A computer readable medium having computer executable instructions for per-
2 forming the method recited in claim 1.
- 1 3. The method of claim 1 wherein the list of files identifies at least for each file:
2 the full file name of the file; and
3 file attribute information associated with the file.
- 1 4. The method of claim 1 wherein the step of retrieving an image of the source com-
2 puter further comprises retrieving the image from a database.
- 1 5. The method of claim 1 further comprising the step of reporting the status of the
2 each target computer's installation of the recreated software system.
- 1 6. The method of claim 1 further comprising the step of determining hardware com-
2 patibility of the target computer with the source computer by comparing at the installa-

tion engine the hardware configuration information identified in the image to the hardware configuration of the target machine.

7. The method of claim 1 wherein the image is transmitted to the installation engine in a compressed and encrypted form.

8. The method of claim 1 wherein the step of recreating of the software system of the source computer further comprises:

- initializing the imaging area based on the disk partition information;
- for each file listed in the list of files, acquiring a copy of the file and writing the copy of the file to the imaging area; and
- copying operating-system-specific information of the source computer to the imaging area.

9. The method of claim 8 wherein the step of acquiring a copy of the file further comprises:

- if the file exists on the storage subsystem of the installation engine, retrieving the file from the storage subsystem at the installation engine; and
- if the file does not exist on the storage subsystem of the installation engine requesting a copy of the file from the packaging engine.

10. The method of claim 1 wherein the step of installing the recreated software system on the selected target computer systems for each target computer further comprises:

- at the installation engine, creating script files and storing the script files on the installation engine's storage system;
- creating a communications connection between the installation engine and a thin-kernel on the target computer;
- at the installation engine, sending a message to the thin-kernel the message containing storage subsystem initialization information;
- at the target computer, initializing the local storage subsystem of the target computer based on the storage subsystem initialization information; and

11 at the target computer, copying the script files and the files of the imaging area to
12 the local storage subsystem on the target computer.

1 11. The method of claim 10 wherein the step of copying script files and the files of
2 the imaging area to the local storage subsystem on the target computer further comprises:
3 compressing and archiving the script files and the imaging area into a file at the
4 installation engine;
5 transferring the file from the installation engine to the target computer; and
6 decompressing and unarchiving the file at the target computer.

1 12. The method of claim 10 wherein the subsystem initialization information identi-
2 fies at least:
3 the number of disk partitions;
4 the name of each disk partition; and
5 the size of each disk partition.

1 13. The method of claim 10 wherein the message further identifies the location of the
2 imaging area and the script files.

1 14. The method of claim 13 wherein the step of copying the files of the imaging area
2 to the local storage subsystem on the target computer further comprises:
3 using the identity of the location of the imaging area, remotely mounting the file
4 systems where the imaging area and script files reside; and
5 copying the script files and the files from the imaging area to the local storage
6 subsystem on the target computer.

1 15. The method of claim 10 wherein the step of creating the script files further com-
2 prises:
3 examining the imaging area to determine the software to be configured;
4 reading details of the target computer system from a database; and

5 creating the script file based on the software to be configured and the details of
6 the target computer system.

1 16. The method of claim 10 wherein the step of creating the script files further com-
2 prises:

3 a user logging into the installation engine's intelligent installation server;
4 the user specifying the contents of the script file; and
5 creating the script file based on the contents.

1 17. The method of claim 10 wherein the step of creating the script files further com-
2 prises:

3 a user specifying the contents of the script file and placing the contents of the file
4 on a remote system;
5 the user logging into the installation engine's intelligent installation server and
6 specifying the location of the file on the remote system; and
7 creating the script file by copying the file on the remote system to the installation
8 engine's storage subsystem.

1 18. The method of claim 10 further comprising after the step of copying the script
2 files:

3 at the target computer, rebooting the target computer; and
4 at the target computer, sending a message to the installation engine.

1 19. A computer-based system for duplicating a software system installed on a source
2 computer onto a plurality of target computers comprising:

3 a deployment console;
4 an imaging and packaging server;
5 a source computer system;
6 an intelligent installation server;
7 a plurality of target computers;

8 a communications connection between the deployment console and the imaging
9 and packaging server;
10 a communications between the imaging and packaging server and the source
11 computer system;
12 a communications connection between the imaging and packaging server and the
13 intelligent installation server;
14 a communications connection between the intelligent installation server and the
15 plurality of target computers;
16 a means for selecting the source computer system from a plurality of source com-
17 puter systems at the deployment console;
18 a means for creating and storing an image of a software system installed on the
19 selected source computer at the imaging and packing server;
20 a means for transmitting the image from the imaging and packaging server to the
21 intelligent installation server;
22 a means for selecting the plurality of target systems at the deployment console;
23 a means for recreating the software system of the source computer from informa-
24 tion provided by the image at the intelligent installation server; and
25 a means for installing the recreated image on the selected plurality of target com-
26 puter systems.

1 20. A computer-based method for creating an image of a first computer and saving
2 the image on a second computer system the method comprising:
3 at the first computer, creating an image of the first computer, the image identify-
4 ing at least the hardware configuration of the first computer, a list of files installed on the
5 first computer and operating-system-specific information of the first computer;
6 sending the image to the second computer; and
7 at the second computer, storing the image in a database that is accessible by the
8 second computer.

1 21. A computer readable medium having computer executable instructions for per-
2 forming the method recited in claim 20.

1 22. The method of claim 20 wherein the list of files identifies at least for each file:
2 the full name of the file; and
3 file attribute information associated with the file.

1 23. The method of claim 20 further comprising the step of selecting the first computer
2 system from a plurality of computer systems.

1 24. A computer-based method for recreating the software system of a source com-
2 puter onto an installation engine the method comprising:
3 retrieving an image of the source computer from a database, the image containing
4 a list of files that are installed on the source computer and disk partitioning information
5 of the source computer;
6 initializing an imaging area located on the installation engine's storage subsystem
7 using the disk partitioning information;
8 acquiring a copy of each file that is listed in the list of files; and
9 storing the retrieved files in the imaging area.

1 25. A computer readable medium having computer executable instructions for per-
2 forming the method recited in claim 24.

1 26. The method of claim 24 wherein the list of files identifies at least for each file:
2 the full file name of the file; and
3 file attribute information associated with the file.

1 27. The method of claim 24 wherein the step of acquiring a copy of each file further
2 comprises:
3 if the file exists on the storage subsystem of the installation engine, retrieving the
4 file from the storage subsystem at the installation engine; and
5 if the file does not exist on the storage subsystem of the installation engine re-
6 questing a copy of the file from the packaging engine.